

What is claimed:

1 1. A system to facilitate the invocation of a CICS transaction within a server central processing
2 unit via a client central processing unit communicated request, converting said invoked transaction's
3 output to an XML document and the communicating of said XML document to said client central
4 processing unit comprising:

5 at least one server central processing unit executing CICS under the dispatching
6 control of said server's operating system;

7 at least one client central processing unit; and

8 software executing within said server central processing unit which adapts said server
9 to respond to a request communicated from said client central processing unit by invoking
10 the execution of a CICS transaction within said server, converting said executed
11 transaction's output to an XML document and communicating said XML document to said
12 client central processing unit.

1 2. The system of claim 1 further comprising at least one intermediary central processing unit
2 which first receives said transmitted request prior to communicating the request to said server central
3 processing unit.

1 3. A computer based method for facilitating the invocation of a CICS transaction within a server
2 central processing unit via a client central processing unit communicated request, converting said

3 invoked transaction's output to an XML document and communicating said XML document to said
4 client central processing unit comprising:

- 5 receiving an input request from a client;
- 6 converting said received request to a standardized format;
- 7 identifying said request as an initial or subsequent request by determining the presence
8 or non-presence of a token communicated with the request;
- 9 creating data structures required to invoke a CICS transaction if initial request, or
10 present data if responding to a prior request;
- 11 initiating a CICS transaction if initial request, or providing data to previously initiated
12 transaction if responding to a prior request;
- 13 awaiting and identifying response to said transaction initiation or said data provision
14 from a group of possible responses including the transaction issued an output command, the
15 transaction issued an input command, the transaction ended, or the transaction ended
16 abnormally;
- 17 continuing process execution based upon results of said identification;
- 18 generating an XML document based upon said continuing process execution; and
- 19 waiting for the next communicated input request.

1 4. The method of claim 3 wherein the response being identified as the transaction issued an
2 output command further comprises saving the output command and related ADS and ADSD
3 information.

1 5. The method of claim 3 wherein the response being identified as the transaction issued an input
2 command further comprises:

3 storing all output commands and associated data in a buffer to allow for simulation
4 of a 3270 type terminal;

5 processing all stored output commands;

6 generating an XML document based upon said output commands which have been
7 normalized; and

8 communicating said generated XML document to said client central processing unit.

1 6. The method of claims 5 and 11 wherein said processing further comprises generating an
2 ADS.

3 7. The method of claims 5 and 11 wherein said processing further comprises merging physical
4 map information into an ADS.

1 8. The method of claims 5, 9 and 11 wherein said processing further comprises merging the
2 composite ADS into current ADS.

1 9. The method of claim 3 wherein the response being identified as the transaction ended
2 abnormally further comprises:

3 generating an XML document and communicating said XML document describing
4 error to said client central processing unit.

1 10. The method of claim 3 wherein the response being identified as the transaction ended further
2 comprises:

3 having determined the transaction requested immediate execution of a subsequent
4 transaction;

5 storing all commands and associated data in a buffer; and,

6 creating data structures and initiating any identified transactions to be immediately
7 invoked.

10 11. The method of claim 3 wherein the response being identified as the transaction ended further
2 comprises:

3 having determined the transaction did not request immediate execution of a
4 subsequent transaction;

5 storing all output commands and associated data in a buffer to allow for simulation
6 of a 3270 type terminal;

7 processing all stored output commands;

8 generating an XML document based upon said output commands which have been
9 normalized; and

10 communicating said generated XML document to said client central processing unit.

1 12. The method of claim 3 wherein said received input request is received in the form of an XML
2 document.

1 13. The method of claim 3 wherein said received input request is received in the form of
2 delimited URL data including an HTTP Query string.

1 14. The method of claim 3 wherein said identifying, creating, initiating, awaiting and waiting,
2 occurs in an iterative manner.

1 15. An apparatus for facilitating the invocation of a CICS transaction within a server central
2 processing unit via a client communicated central processing unit request, converting said invoked
3 transaction's output to an XML document and transmitting said XML document to said client central
4 processing unit comprising:

5 a general purpose computer;

6 a memory that stores a program which XML-enables CICS transactions; and

7 a central processing unit that, when executing said program, adapts said general
8 purpose computer to facilitate the invocation of a CICS transaction within said central
9 processing unit based upon a a client communicated central processing unit request, converts
10 said invoked transaction's output to an XML document and transmits said XML document
11 to a client central processing unit.

1 16. The apparatus of claim 15 wherein said executing program's adaptation of said general
2 purpose computer further comprises:

3 receiving an input request from a client;

4 converting said received request to a standardized format;

5 identifying said request as an initial or subsequent request by determining the presence
6 or non-presence of a token communicated with the request;
7 creating data structures required to invoke a CICS transaction if initial request, or
8 present data if responding to a prior request;
9 initiating a CICS transaction if initial request, or providing data to previously initiated
10 transaction if responding to a prior request;
11 awaiting and identifying response to said transaction initiation or said data provision
12 from a group of possible responses including the transaction issued an output command, the
13 transaction issued an input command, the transaction ended, or the transaction ended
14 abnormally;
15 continuing process execution based upon results of said identification;
16 generating an XML document based upon said continuing process execution; and
17 waiting for the next communicated input request.